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In the Supreme Court of the United States

No. .....

October Term, 1972

SHATTERPROOF GLASS CORPORATION,
Petitioner,

vs.

GUARDIAN GLASS CO., INC., *et al.*,
Respondents.

PETITION FOR A WRIT OF CERTIORARI
To the United States Court of Appeals
For the Sixth Circuit

Shatterproof Glass Corporation, petitioner herein, respectfully prays that a writ of certiorari issue to review the judgment of the United States Court of Appeals for the Sixth Circuit entered on June 28, 1972 affirming the judgment of the United States District Court for the Eastern District of Michigan, Southern Division, at Detroit.

OPINIONS BELOW

The opinion of the District Court is reported at 322 F.Supp. 854 (E.D. Mich. 1970). The opinion of the Court of Appeals is reprinted in the appendix but has not yet been reported.

JURISDICTION

The judgment of the United States Court of Appeals for the Sixth Circuit was entered on June 28, 1972. The jurisdiction of this court is invoked under 28 U.S.C. Sec. 1254(1).

QUESTIONS PRESENTED FOR REVIEW

1. Should petitioner not have been granted a new trial on motion timely made because respondent submitted to the trial court in a trial to the court without a jury an extensive pretrial brief without the knowledge of or notice to petitioner.

2. Could petitioner have a fair opportunity procedurally, substantially and evidentially to pursue his claim in a trial to the court without a jury once respondent had submitted to that court an extensive pretrial brief without the knowledge of or notice to petitioner.

STATEMENT OF THE CASE

Shatterproof Glass Corporation, petitioner, sued Guardian Glass Co. Inc., respondent, for infringement of U. S. Patent No. 3,103,430 and for unfair competition based on misappropriation of trade secrets. Federal jurisdiction was based on 28 U.S.C. 1332(a) and 1338(a) and (b).

On April 30, 1969 the court entered a "Preliminary Pretrial Order" which set the trial date for September 9, 1969 and directed the parties to collaborate in formulating an agreed-upon pretrial order to contain a statement of plaintiff's claim, a statement of defendant's defense, a stipulation of facts, a designation of the issues of fact to be litigated, a designation of the issues of law to be litigated, the names of expert witnesses and an estimated length of the trial. This pretrial order was to "govern the course of the trial of this cause, unless modified to prevent manifest injustice", in accordance with Rule 16 FRCP. A pretrial

order was in fact worked out between the parties, signed by the judge and entered in the case on September 3, 1969. A copy of the "Preliminary Pretrial Order" entered April 30, 1969 and the "Pretrial Order" entered September 3, 1969 are reproduced in the appendix.

On or about August 29, 1969, at about the time that the agreed-upon pretrial order was submitted to the trial court, respondent, without the knowledge of or any notice to petitioner, provided that court with an extensive pretrial brief.

After the first week of the trial, petitioner's counsel deduced from a study of the transcript and particularly the opening statement of respondent's counsel that additional papers had been given to the court and made reference to this fact on the record. In response, the trial court acknowledged that respondent had provided him with a pretrial brief. At this point in the trial, petitioner's principal witness had completed his direct testimony and was on cross-examination. After the trial was over, petitioner finally obtained a copy of respondent's pretrial brief but it has never been made of record in the case.

The opinion of the trial court was filed on December 7, 1970. On February 18, 1971 before entry of the final judgment petitioner moved for a new trial and for additional findings of fact and conclusions of law. The ground for the motion for a new trial was the filing of the pretrial brief without notice to or service upon petitioner. A hearing on the motion was held on March 16, 1971 at which time petitioner's motion was denied.

At this hearing, in defense of its action, respondent alleged that the court had entered an oral order in a pretrial hearing held in chambers on December 11, 1967, not reported, that the parties should file pretrial briefs 30 days

before the trial *without exchange*. One of respondent's attorneys took notes of the December 11, 1967 pretrial hearing and a portion of said notes reads "Wants pretrial brief 30 days before trial—no exchange." Petitioner's attorney had no recollection of any such order. Respondent's pretrial brief was filed on or about August 28, 1971, approximately twelve days before trial, not "30 days prior to trial", in accordance with the "order" of the court it alleges that it was following.

At the March 15, 1971 hearing on the motions, the trial judge said that:

> ". . . my custom of recent years has been to request the parties to file pretrial briefs at least 30 days prior to trial without exchanging. If the parties agree, that is the order, with the further proviso that they will be exchanged after trial if the parties wish."
>
> * * * * *
>
> ". . . there is no doubt whatever in my mind that if anyone had suggested the slightest objection to the furnishing of pretrial briefs as the Court thinks it suggested, it never would have been done, never. . . ."

Petitioner never agreed or consented to this procedure. Respondent has not contended that there was any such agreement, notwithstanding the implications of the statement of the trial court which indicate that he mistakenly thought that there had been an agreement.

The issue of the propriety of the pretrial brief was presented and argued to the Court of Appeals but the Court of Appeals did not comment on it except to state "Nor do we consider other issues raised by appellant since we find them to be without merit."

The patent in suit relates to a mold or fixture used in the manufacture of bent laminated automobile windshield glass. Two sheets of glass are placed on these fixtures and pass through a long furnace wherein they soften and bend to the desired shape.

The trial court found that three claims of the patent in suit were invalid. If valid, the trial court found that two claims were infringed and one was not. The trial court further found that respondent was not guilty of any unfair competition or other impropriety and dismissed the second cause of action.

Petitioner appealed from the holding that the two claims found to be infringed were invalid. Petitioner did not appeal the dismissal of the second cause of action and did not appeal the finding that the third claim, which was held not infringed, was invalid. The Court of Appeals affirmed the trial court and concluded that the first two claims of the patent in suit were invalid.

REASONS FOR GRANTING THE WRIT

This petition presents significant issues bearing on the due process aspects of *non-jury* trials.

This Court has shown keen interest and control over the due process aspects of criminal and other jury trials. It has not indicated a comparable interest and control over non-jury trials even though the number of civil actions decided by a trial judge acting without a jury has been increasing.

Ex parte communications with the court are universally condemned by the various ethical codes promulgated in and adopted by the legal profession.[1] Notwithstanding these ethical rules, there is a dearth of cases dealing with the propriety or lack of propriety of ex parte communications, particularly pretrial briefs. There are no judicial guidelines, even though in petitioner's submission, there clearly ought to be.

Petitioner recognizes that the purposes and functions of a trial brief may be quite different in a jury case as opposed to a non-jury case and that, in a jury case, when the parties agree upon the procedure, a trial brief submitted to the judge and not served upon the opponent may be in order. In a non-jury case, however, the situation is quite different.

Petitioner cannot be expected to delve into the mental processes of the trial court nor can petitioner establish a cause and effect relationship between the secret pretrial brief and the adverse opinion of the trial court nor should petitioner be required to do so. The receipt of an extensive brief, on the eve of trial without notice to or the knowledge of the other side, is clearly inconsistent with substantial justice and the appearance of detached impartiality of the court. *Rapp v. Van Dusen et al.*, 350 F.2d 806, 812 (3rd Cir. 1965).

The failure of the trial judge to perform his judicial function without notice to the opposing side amounts to

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1. See Canon 3 of the American Bar Association's "Canons of Professional Ethics", Disciplinary Rule 7-110(B) of the American Bar Association's "Code of Professional Responsibility", Subsection (b) of Code 19 of the American College of Trial Lawyers' recently adopted "Code of Trial Conduct" and Canon 17 of the American Bar Association's "Code of Judicial Ethics."

a denial of due process. *Chicopee Manufacturing Corp. v. Kendall Company*, 288 F.2d 719, 725 (4th Cir. 1961).

Due process of law means something more than notice and an opportunity to be heard. That minimal requirement is meaningless if it does not lead to judgment pronounced only in conformity to ascertainable standards fixed by law. One of the fundamental premises is that neither adversary be permitted to engage in ex parte communications concerning the merits of the case with those responsible for its decision. *Camero v. United States*, 375 F.2d 777, 780 (U.S. Ct. Cl. 1967).

We remind this Court that historically it enforces the highest standards.[2] Petitioner's motion for a new trial should have been granted.

This case raises an issue which can no longer be ignored and should be dealt with. It presents an opportunity to bring judicial non-jury trial procedure into conformity with the universally adopted ethical code of the profession and, once and for all, to settle the matter.

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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Of Counsel

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2. *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238 (1944); *Keystone Driller Co. v. General Excavator Co.*, 290 U.S. 240 (1933).

APPENDIX

OPINION OF THE COURT OF APPEALS

(Decided and Filed June 28, 1972)

No. 71-1498

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

SHATTERPROOF GLASS CORPORATION,
Plaintiff-Appellant,

vs.

GUARDIAN GLASS COMPANY, INC., *et al.*,
Defendants-Appellees.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

Before: CELEBREZZE, McCREE and MILLER, Circuit Judges.

MILLER, Circuit Judge. Shatterproof Glass Corporation instituted this action against Guardian Glass Company, Inc. charging Guardian with patent infringement and the theft of alleged trade secrets. Both parties are in the glass bending business, and the patent and alleged trade secrets relate to molds or fixtures which these manufacturers employ in bending glass to form automobile windshields. Shatterproof complained that Guardian infringed Claims 1, 3 and 7 of the Jendrisak patent-in-suit 3,103,430 and appropriated 43 trade secrets. Following a twelve day trial, the district court found Claims 1, 3, and 7 invalid as obvious and determined that Shatterproof possessed no trade secrets. The

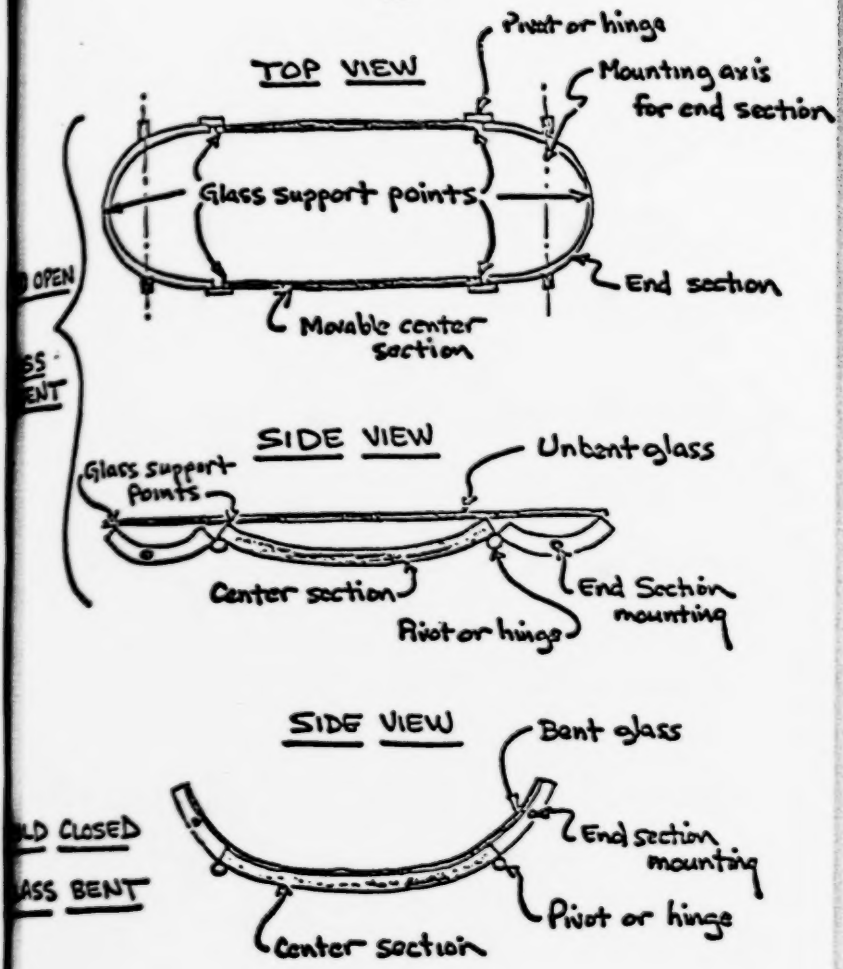
court further concluded that Claims 1 and 3 were infringed if valid and that Claim 7, if valid, was not infringed.

On appeal, Shatterproof does not contest the finding that Claim 7 is obvious from the prior art. Appellant also abandons its claim to the alleged trade secrets. Thus we consider only whether Claims 1 and 3 were properly declared invalid.

Shatterproof and Guardian are manufacturers of replacement windshields for automobiles and do not make the original equipment. Pittsburgh Plate Glass, Libbey-Owens-Ford, and Ford Motor Company supply the original equipment to automobile manufacturers, while the parties to this action supply replacements to repair shops which replace broken windshields. Originally, the manufacture of windshields was simple. All that was needed were two flat panes of glass. One pane served as the left side of a windshield, and the other pane served as the right side; a divider strip separated the two panes. Beginning in the early 1950's, new concepts in windshield design were introduced. The single piece of curved glass became the prevailing style. Then in 1954, Ford Motor Company introduced the larger, heavier, more deeply bent wraparound or panoramic windshield. These new designs required a technique for bending glass and to meet this need glass bending molds were developed.

The bending process is simple in theory. A flat pane of glass is placed on a mold. The mold then travels along a conveyor through a long furnace. While moving through the furnace, the heat-softened glass sags and conforms to the shape of the supporting mold. A modern laminated windshield is produced by placing a plastic sheet bonding agent between two flat panes of glass and passing this combination through the furnace.

Early molds for the slightly curved windshields consisted of only one piece. Later, however, the wraparound windshields required more sophisticated fixtures. These molds consisted of three parts: a center section and two end sections. During the bending process the mold would move from an open to a closed position. Unbent flat glass would be supported horizontally on the mold in its open position. During heating, the glass initially would sag at the middle and begin to drop into the center section. Then, the end sections would swing upward to the closed position of the mold and bend the glass. The sections would be connected with and their movement coordinated by means of various hinges, pivots, and links. Some center sections were movable; some were not. Different molds used varying numbers of support points for the flat glass. Some early multiple section molds were "thrust" molds in that the fixture employed a pushing force against the end edges of the flat glass to create a buckling effect in the softened glass and accelerate the bending. Later molds discontinued thrust forces and relied solely upon the force of gravity to produce the necessary sag in the softened glass. The simplified sketch, (Insert Sheet) demonstrates the basic structure of a modern glass bending mold.


Pivot or hinge
TOP VIEW
Mounting axis for end section
Glass support points
End section
Movable center section
OPEN
SS
ENT
SIDE VIEW
Glass support points
Untent glass
Center section
End Section mounting
Pivot or hinge
SIDE VIEW
Bent glass
End section mounting
Pivot or hinge
Center section
LD CLOSED
ASS BENT

The continuing changes in mold design and structure were due not only to the manufacturers' natural tendency to improve performance but also to the need to maintain pace with windshield style changes. A new shape in a windshield might require a new mold. Whenever an automobile manufacturer proposed a new style in a windshield, mold designers at the original equipment fabricators would determine the feasibility of making a mold which would produce the desired style. If the proposed windshield could be molded, the automobile makers would be supplied. Thereafter, the original equipment manufacturers would provide the replacement suppliers, such as Shatterproof and Guardian, with samples of the windshield to be used. From these samples, Shatterproof and Guardian would then prepare molds to produce the replacement parts.

There emerges from the record, therefore, a picture of a crowded art not precisely scientific in its refinement. The testimony of Joseph Jendrisak, inventor of the patent-in-suit, indicates that making a mold to produce the desired style of windshield is in part a matter of trial and error. If a test mold did not produce the windshield, changes in design would be made. The changes would involve such modifications as relocating hinges and pivots or adjusting the weight of the three mold parts.[1]

At trial, hinges, pivots, mold weight, and points of support were among the bases utilized to distinguish the patent-in-suit from the prior art. Shatterproof sought to prove that the structure of its mold differed significantly

1. As the district court observed:

It is not a precise art. Actually, we are in the area of "just old-fashioned blacksmiths". (Tr. 1205) It is a trial and error operation, substantially empirical. Such testimony as "We don't have any drawings" [of molds], that no computers are used, that "we don't pay any attention to the fact that it's got to be absolutely horizontal" and so forth, gives a picture of the art far removed from the laboratory of the scientist.

from that of other molds. Appellant also sought to show that its mold operated differently to produce a different result from other fixtures. The district court found no patentable distinctions in the structure of Shatterproof's mold and found it obvious from the prior art. Further, the court found that a mold which had been placed in prior public use by an original equipment manufacturer demonstrated the same basic structure found in the patent-in-suit and worked in the same way to produce the same result.

The Jendrisak patent-in-suit was issued on September 10, 1963. The application had been filed on August 6, 1958, as a continuation-in-part of a patent application filed March 1, 1956. The patent relates to a glass bending apparatus consisting of a center section and two symmetrical end sections which are hinged to the ends of the center section. The mold supports a flat glass pane on its marginal edges at six-points in a horizontal plane, two points being at the tip ends of the end sections and four points being at the four corners of the center section.

Patentability depends upon the satisfaction of three express statutory requirements: novelty, utility, and non-obviousness. 35 U.S.C. Secs. 101-103. We are here primarily concerned with the last of these criteria.[2] In reviewing the determination of the district court, we are mindful of the teaching of *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966):

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2. 35 U.S.C. Sec. 103 provides:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. July 19, 1952, c. 950, § 1, 66 Stat. 798.

While the ultimate question of patent validity is one of law, *A. & P. Tea Co. v. Supermarket Corp.*, *supra*, at 155, the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Thus we first consider the district court's factual findings on the content of the prior art and the improvements on that art contributed by the patent-in-suit. These findings may be disapproved only if clearly erroneous. Rule 52(a), Federal Rules of Civil Procedure; *Westwood Chemical, Inc. v. Owens-Corning Fiberglas Corp.*, 445 F.2d 911 (6th Cir. 1971). Then we consider the correctness of the district court's legal conclusion of obviousness.

One of the most important prior art references relied upon by Guardian and the district court was an unpatented mold utilized by Ford Motor Company. Guardian maintained that the mold was a proper prior reference because it had been in public use more than a year prior to the date of the Jendrisak application for patent. 35 U.S.C. Sec. 102(b).[3] Shatterproof contends in its brief that "there is no finding that the Ford mold was in public use more than a year before the filing date of the patent in suit. . . ." On the contrary, one of three such findings by the district

3. 35 U.S.C. Sec. 102 provides in part that:

A person shall be entitled to a patent unless—

* * *

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . . .

court is that "[i]n the month of July, 1954 (which is about 20 months prior to the filing of the patent-in-suit) the Ford mold was put into commercial operation." 322 F.Supp. 854, 858 (1970). Such a use was public. *Electric Battery Co. v. Shimadzu,* 307 U.S. 20 (1939); *FMC Corporation v. F. E. Myers & Bro. Co.,* 384 F.2d 4 (6th Cir. 1967). Ample evidence supports that finding. This objection to the consideration of the Ford mold is without merit.

In a further attempt to remove the Ford mold from view, Shatterproof stated at oral argument that Guardian did not give the statutorily required notice that the Ford mold was to be used as prior art. 35 U.S.C. Sec. 282.[4] But Shatterproof points to no objection in the record to the use of that art; it did not raise the question at the hearing on its motion for a new trial; it did not brief the issue on appeal. The purpose of the Sec. 282 notice is to prevent surprise. The testimony of Jendrisak reveals that over a year prior to trial he was supplied with drawings of the Ford mold, and examined that mold. His attorney was sent photographs. The pre-trial order listed as one issue to be litigated: "[w]hether the bending fixtures of Defendant Guardian Glass Company, Inc. were based upon designs of

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4. That section provides in part that:

A patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on a party asserting it.

* * *

In actions involving the validity or infringement of a patent the party asserting invalidity or infringement shall give notice in the pleadings or otherwise in writing to the adverse party at least thirty days before the trial, of the country, number, date, and name of the patentee of any patent, the title, date, and page numbers of any publication to be relied upon as anticipation of the patent in suit or, except in actions in the United States Court of Claims, as showing the state of the art, and the name and address of any person who may be relied upon as the prior inventor or as having prior knowledge of or as having previously used or offered for sale the invention of the patent in suit. In the absence of such notice proof of the said matters may not be made at the trial except on such terms as the court requires. July 19, 1952, c. 950, § 1, 66 Stat. 812.

the Ford Motor Company or upon the design of Plaintiff." The right to this notice may be waived, and Shatterproof's afterthought comes too late. The mere breach of Sec. 282 does not necessarily require reversal. Absent the required notice, the trial court may still allow proof of the prior art where fairness is not sacrificed, and in this regard, "much discretion is committed to the trial judge." *Thermo King Corporation v. White's Trucking Service, Inc.*, 292 F.2d 668, 677 (5th Cir. 1961). The unpatented Ford mold was properly considered as part of the prior art.

With this threshhold matter aside, we may examine the substance of the prior art. In the interest of clarity and economy we juxtapose the factual inquiries into the state of the art and the improvements thereon of the claimed invention. Much time was spent in the court below analyzing the alleged distinctive features of the patent-in-suit. Claim 1 of the patent describes the essential features of the invention.[5] There are two end sections pivoted to and

5. That claim provides:

1. A collapsible mold for forming curved glass panes by gravity bending thereof while heated having two substantially identical end sections mounted to swing vertically about parallel transverse horizontal axes intermediate their ends and at substantially equal distances from their inner ends and an elongated horizontally disposed center section supported at its ends on the inner ends of said end sections for vertical movement therewith, each end section having a marginal glass engaging member extending around its outer end and along its opposite sides, said center section having glass engaging members extending along its sides, said glass engaging members having end faces that abut at the ends of the center section and top faces that form a continuous concave glass shaping face when said sections are in molding position, pivots connecting said center section to said end sections, said pivots being below the top faces of said members and offset with respect to a line perpendicular to the glass shaping face at the parting line between the top faces of the glass engaging members whereby the top edges of the abutting ends of said glass engaging members move apart and one upwardly with respect to the adjoining end as the inner ends of the end sections and the center section move upwardly from molding position to provide a high point on said shaping surface at each of the four places where the ends of said glass engaging members adjoin, said axes and said pivots being so disposed with respect

swinging about a center section on parallel horizontal transverse axes. The center section is supported by the end sections for vertical movement therewith. The glass is initially horizontally supported at six points, of which two are at the tips of the end sections and four are between those sections. Claim 3 is dependent on claim 1 and requires that the four intermediate high support points be at the ends of the center section.[6]

At trial, much testimony and argument centered on the "six point support." After eliciting from Jendrisak the statement that he thought that he had invented "[t]he six-point support," Guardian sought to prove a lack of novelty and obviousness. Shatterproof contends that Jendrisak merely used an abbreviated designation for his invention. In considering this aspect of the patent, the district court noted that two copending patents of Jendrisak disclosed everything of significance in the patent-in-suit except for the six point support.[7] This feature, however, was old in the art. The Ford mold used the same glass supporting technique. Three patented molds, while distinguishable as to other features, displayed the six-point support. Thus

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to said glass engaging members that the outer ends of said shaping face and the four intermediate high points thereof are movable to a glass supporting position where they are in horizontal alinement, whereby the glass is supported solely by end and intermediate portions of said glass shaping face during the bending operation.

6. Claim 3 provides:

3. A collapsible mold according to claim 1 in which the ends of the center section are connected to the end sections by pivots that are offset inwardly with respect to a line perpendicular to the glass shaping face at each parting line between the top faces of the glass engaging members whereby the outer ends of the center section glass shaping faces are higher than the inner ends of the center section shaping faces during the movement of the sections from the glass receiving position to the glass molding position.

7. The copending patents were not used as prior art references against the Jendrisak patent-in-suit. The district court was merely attempting to define the claimed invention. The parties have not agreed on what the patent-in-suit claims as its invention.

this element of Jendrisak's mold was not novel. The district court also noted that judging from the prior art, as the glass became heavier and larger it was an obvious step to increase the points of support to six. But the court did not confine its inquiry to an examination of the six-point support characterization of the invention. Other asserted distinctions of the patent-in-suit were considered. In reviewing the factual findings of the district court only essential portions of the evidence are referred to here, and a more complete summary may be found in the lower court's opinion at 322 F.Supp. 854 (1970).

One alleged difference between the Shatterproof and Ford molds is that the Ford mold supposedly does not provide horizontal support as required by Claim 1. The Ford mold has a slight tilt of about three-eighths of an inch in a two foot span. The district court noted that "both Mr. Jendrisak and his counsel admitted that a mold with such a slight tilt would infringe Claim 1, that it would still be 'horizontal', which we think is the practical and intended meaning of the word." *Id.*, at 860. The evidence indicates that the glass was supported in a horizontal plane to keep it from slipping off the mold while traveling through the furnace. The district court did not erroneously conclude that the Ford mold similarly supported the glass in a horizontal plane as required by Claim 1. Any modification to make the Shatterproof mold more nearly horizontal would be an obvious step.

Another suggested distinction between the Jendrisak patent and the Ford mold is that the patent-in-suit allegedly requires extreme lightness in mold weight. But the claims state no such requirement. Both the Guardian mold and the Shatterproof mold were made of fabricated strips whereas the Ford mold was a cast mold. A Guardian vice president, who had previously worked for Ford, testified that the

choice of construction was dictated by considerations of cost and projected length of use. The district court found that this unclaimed aspect of the Guardian and Shatterproof molds was old and in the prior art. This finding was not erroneous.

A third alleged distinction between the Shatterproof mold and the Ford mold is that the Ford end sections do not swing about parallel axes as required by Claim 1. The Ford axes are slightly non-parallel. The designer of the Ford mold testified that the orientation of the axes was determined by the shape of the windshield to be bent and had no effect on the operation of the mold. The district court, in our view, was correct in finding no basis for patentability predicated upon the parallelism of the axes.

Shatterproof next contends that the Ford fixture is a thrust mold whereas its mold is a gravity mold. As stated above, a thrust mold utilizes compressive forces on the ends of the flat panes of glass to assist the natural gravity-induced sag of the heat-softened glass. Shatterproof argues that the Ford mold employs a stop which exerts pressure on the glass. The district court found from the evidence that the stop engaged only the top of the glass to prevent an upward curl of the glass as the mold reached its closed position. Thus the stop could not create a thrust. Appropriate here is mention of Claim 7 of the Jendrisak patent.[8]

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8. That Claim provides:

> 7. In apparatus for gravity bending of glass panes while heated, a mold having an end section that is mounted to swing vertically about a horizontal axis that conforms to an end portion of a curved glass pane, that has an outer end with a face that engages with the under side of a glass pane to be bent and that moves upwardly during the bending operation, a glass retaining member, means for supporting said member on said end section for movement toward or away from a clamping position where it presses the end of the glass pane against said glass engaging face, and means controlled by movements of said end section for exerting a thrust on said retaining member to shift the same in a direction away from

That Claim relates to a "hold down device" found obvious by the district court. The specifications of the patent demonstrate that this device performs the same function as the stop. Testimony of the Ford mold designer emphasized that the Ford mold was a gravity mold and utilized no thrust pressures. Thus the district court correctly found that the Ford fixture was not a thrust mold.

A final attempt at distinguishing the Ford mold concerns the mounting of the end sections. In the Ford mold, one end section was mounted on a fixed pivot, and the other section was mounted on a swinging link. In the Jendrisak patent-in-suit, both end sections are supported on swinging links. However, a prior art Jendrisak patent 2,551,607, issued five years before the filing date of the patent-in-suit, disclosed symmetrical links supporting the end sections of a glass bending mold. The evidence indicated that the prior art Jendrisak patent and the Ford mold teach and reasonably suggest the end section mounting of the patent-in-suit.

Consequently the Jendrisak mold shows no significant structural improvement over the prior art which would support a conclusion of patentability. The invention taken as a whole would be reasonably suggested to a person of ordinary skill in the art. However, Shatterproof contends that its invention has been misunderstood. Appellant maintains that its mold differs from the Ford mold in that it operates in a different way to produce a different result. This conclusion relies upon the total effect created by the suggested distinctions in the Shatterproof mold. It is argued that the patented mold is not obvious because it solves a

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its pane clamping position when the outer end of said end section is in its lower-most position and for reversing the thrust on said retaining member to move the same into pane clamping position and to press the pane against said face as the outer end of said end section approaches its uppermost position.

problem which existed in the art. *See Application of Conover*, 304 F.2d 680 (1962).

Such a combination of old elements would be patentable if it performed a new function. But an alleged combination patent must be scrutinized with care. *A. & P. Tea Co. v. Supermarket Corp.*, 340 U.S. 147 (1950). Appellant asserts that the parallel axes and two movable links on its fixture cause the center section of the mold to move in a purely vertical manner whereas Ford's mold has a lateral component in connection with the movement of the center section. During the bending process, the Ford center section moves laterally perhaps as much as three inches while moving vertically about five inches. Shatterproof contends that this lateral movement causes problems for Ford.

Ford did experience a peculiar problem in that its windshields would upon occasion explode in storage or in transit. Thus at the end of its production line, Ford positioned a man to hit each windshield with a rubber hammer. This procedure assured that only sound windshields were released. Apparently, the problem was not prohibitive since the Ford mold produced approximately 2,000,000 windshields.

Shatterproof and Guardian did not experience this problem, and the appellant asserts that its mold was responsible for preventing any explosions. However, the designer of the Ford molds testified that the problem was strictly an annealing problem and had nothing to do with tooling. The annealing process occurs subsequent to the bending. Shatterproof's hypothesis is not proven in the record.

The district court concluded that both molds operated on the same basic theory and stated that "there are no significant differences in the functioning of the Ford and

Jendrisak molds." 322 F.Supp. at 860. We agree with this conclusion.

In challenging the validity of the patent-in-suit, Guardian was, of course, confronted with the statutory presumption of patent validity. 35 U.S.C. Sec. 282.[9] But "[t]he failure of the Patent Office to consider pertinent prior art tends to weaken if not vitiate the presumption of validity." *Westwood Chemical, Inc. v. Owens-Corning Fiberglas Corp.*, *supra*, at 916. The significant prior art Ford mold was not considered by the Patent Office. Guardian has overcome the weakened presumption. And Shatterproof has not shown that its patent is more than an obvious aggregation of old elements. We therefore affirm the district court's conclusion that Claims 1 and 3 are invalid.

In its formal judgment the district court enjoined Shatterproof from asserting infringement of "Jendrisak Patent No. 3,103,430" against Guardian or its customers. Appellant challenges the injunction on two grounds. First, it is said that the injunction is overbroad since only Claims 1, 3, ad 7 were litigated. Second, it is said that the order granting the injunction did not comply with Rule 65(d), Federal Rules of Civil Procedure, by setting forth the reasons for its issuance. Guardian maintains that the relief was not overly broad because Claims 2 and 4-6 embody the same subject matter found in the adjudicated claims.[10]

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9. See note 4, *supra*.

10. These remaining claims provide:

2. A collapsible mold according to claim 1 in which the ends of the center section are connected to the end sections by pivots that are offset outwardly with respect to a line perpendicular to the glass shaping face at each parting line between the top faces of the glass engaging members whereby the inner ends of the shaping faces of the end sections are higher than the outer ends of the center section shaping faces during the movement of the sections from the glass receiving position to the glass molding position.

4. A collapsible mold according to claim 1 in which retaining members are mounted on the outer end of said end

Further, Guardian asserts that the reasons for the issuance of the injunction may be found in the opinion of the district court.

By pre-trial order, the patent issues were narrowed to the question of the validity of Claims 1, 3, and 7. The district

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sections normally supported in positions spaced from the top face of a flat pane supported on the mold and in which means is provided for automatically moving said retaining members into engagement with the top face of the pane as said end sections approach their uppermost positions to hold the same in engagement with the outer ends of the end sections of the mold during the final portion of the movement of said end sections to their molding positions.

5. In apparatus for gravity bending of glass panes while heated, a mold having an end section that is mounted to swing vertically about a horizontal axis, that conforms to an end portion of a curved glass pane, that has an outer end provided with a face that engages with the under side of a glass pane to be bent and that moves upwardly during the bending operation, a glass retaining member mounted on the outer end of said section for movement toward and away from the glass engaging face of said section, a counterweighted lever mounted on said section, and means for connecting said lever to said member and for positioning the same to apply a thrust holding said member spaced away from the glass engaging face of said end section while said end section is in lowered position and to reverse the thrust of the lever to move said member toward said section to clamp the pane against said face as said section approaches its uppermost position.

6. In apparatus for gravity bending of glass panes while heated, a mold having an end section that is mounted to swing vertically about a horizontal axis that conforms to an end portion of a curved glass pane, that has an outer end provided with a face that engages with the under side of a glass pane to be bent and that moves upwardly during the bending operation, a glass retaining member mounted on the outer end of said section for movement toward and away from the glass engaging face of said section, a lever mounted on said section to swing vertically about a transverse axis intermediate its ends and extending above and below said axis, a counterweight connected to the lever below said axis, means connecting the upper end of the lever to said member to move the same toward or away from said glass engaging face, said counterweight being positioned at one side of said axis when said end section is in lowered position and exerting a thrust on said lever in a direction to move said retaining member away from said face and being movable by gravity across said axis as said section moves upwardly to reverse the thrust of the lever on said retaining member to move the same toward said face to press the pane toward said face as said section approaches its uppermost position.

court's "holding of invalidity should only apply to the patents' claims directly in issue." *Westwood Chemical, Inc. v. Owens-Corning Fiberglas Corp., Id.*, at 913. But under well-established principles of res judicata, Shatterproof is barred from asserting against Guardian any claim which could have been asserted in this cause of action. *See e.g., Commissioner v. Sunnen*, 333 U.S. 591 (1948); *Morris v. Jones*, 329 U.S. 545 (1947). *Shatterproof* does not dispute these principles but urges that the remaining claims were not litigable in this action.

The district court did not articulate its reasons for enjoining *all* claims of the patent and we think the action should be remanded to permit the parties to demonstrate the litigability or non-litigability of Claims 2 and 4-6 of the Jendrisak patent in the present action. The court should make appropriate findings to support its conclusions in this respect. If in fact Claims 2 and 4-6 are, for example, merely restatements of the adjudiciated claims or if they contain no significant variations therefrom, then they could have been litigated and, in our view, would be properly enjoinable.

We need not determine appellant's allegation under Rule 65(d), Federal Rules of Civil Procedure, since the district court will have the opportunity on remand to set forth adequate reasons for any injunction which may be entered. Nor do we consider other issues raised by appellant since we find them to be without merit.

The judgment of the district court is affirmed and the action is remanded for further proceedings relative to the scope of any injunctive relief.

JUDGMENT OF THE COURT OF APPEALS

(Entered June 28, 1972)

No. 71-1498

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

SHATTERPROOF GLASS CORPORATION,
Plaintiff-Appellant,

vs.

GUARDIAN GLASS COMPANY, INC., *et al.*,
Defendants-Appellees.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

Before: CELEBREZZE, McCREE and MILLER, Circuit Judges.

This Cause came on to be heard on the record from the United States District Court for the Eastern District of Michigan and was argued by counsel.

On Consideration Whereof, it is now here ordered and adjudged by this Court that the judgment of the said District Court in this cause be and the same is hereby affirmed and the case remanded for further proceedings.

It is Further Ordered that Defendants-Appellees recover from Plaintiff-Appellant the costs on appeal, as itemized below, and that execution therefor issue out of said District Court.

Entered by order of the Court.

JAMES A. HIGGINS
Clerk

PRELIMINARY PRE-TRIAL ORDER OF DISTRICT COURT

(Entered April 30, 1969)

Civil Action No. 26,544

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

SHATTERPROOF GLASS CORPORATION,
Plaintiff,

vs.

GUARDIAN GLASS COMPANY, INC.,
Defendant.

PRELIMINARY PRE-TRIAL ORDER

IT IS ORDERED that counsel for all parties collaborate in formulating a short, concise pre-trial order to be drafted by plaintiffs counsel, approved and signed by counsel for all parties, and submitted to this Court for signature and entry, as ordered below, in paragraph E. Such order is to contain the following:

1. Statement of plaintiff's claim, including legal theories.
2. Statement of defendant's defense, including legal theories.
3. Stipulation of facts, including jurisdiction, so far as possible.
4. Issues of fact which remain to be litigated.
5. Issues of law to be litigated.

6. Names of expert witnesses, if any.

7. Estimated length of trial.

IT IS FURTHER ORDERED:

A. If the case is to be tried to a Jury, requests for instructions shall be submitted to the Court at the commencement of the case, subject to the right of counsel to supplement such requests during the course of trial on matters that cannot reasonably be anticipated.

B. The pre-trial order shall supplement the pleadings and govern the course of the trial of this cause, unless modified to prevent manifest injustice.

C. FAILURE TO STRICTLY COMPLY WITH ALL THE TERMS OF THIS ORDER MAY RESULT IN A DISMISSAL, DEFAULT JUDGMENT OR OTHER APPROPRIATE ACTION AGAINST THE OFFENDING PARTY.

D. Any differences with respect to the preparation of the pre-trial order by counsel will be settled by the Court prior to the ordered submission date and counsel may call the Court for an appointment.

APPEARANCE OF COUNSEL IS NOT REQUIRED UNLESS SUCH DIFFERENCES EXIST.

E. Pre-trial order to be submitted on or before August 25, 1969.

F. Trial date September 9, 1969.

TALBOT SMITH
U. S. District Judge

PRE-TRIAL ORDER OF DISTRICT COURT

(Entered September 3, 1969)

Civil Action No. 26,544

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

SHATTERPROOF GLASS CORPORATION,
Plaintiff,

vs.

GUARDIAN GLASS COMPANY, INC.,
Defendant.

PRE-TRIAL ORDER

Pursuant to the Preliminary Pre-Trial Order dated April 30, 1969, the parties hereto jointly present and stipulate to the following Pre-Trial Order:

1. JURISDICTION:

Jurisdiction and venue are admitted. Jurisdiction is based upon the patent statutes 35 USC 271 et seq., and 28 USC 1332, 1338 and 1400. The Court has ancillary jurisdiction over the trade secrets complaint.

2. PARTIES:

(a) Plaintiff, Shatterproof Glass Corporation, is a Delaware Corporation, with its offices and principal place of business at 4815 Cabot Avenue, Detroit, Michigan.

(b) Defendant, Guardian Glass Company, Inc., a Michigan Corporation, insofar as is relevant to this suit, has changed its name and state of incorporation and is now

known as Guardian Industries, Inc., a Delaware Corporation, with offices and a place of business at 127 Campbell Street, Detroit, Michigan. Plaintiff reserves the right to develop the relationships between the above named companies and move to substitute or join parties as is appropriate or advisable in the circumstances.

3. THE COMPLAINT OF PLAINTIFF:

The general subject matter of this litigation pertains to the manufacture of curved laminated windshields for automobiles and trucks.

Laminated glass is comprised of a sheet of polyvinyl butyral plastic sandwiched between two pieces of glass which, upon processing, become an essentially monolithic structure. The primary safety feature of laminated glass is its ability to prevent pieces of glass from flying after being broken.

In the fabrication of curved laminated glass, sheets of block size glass are cut into the desired shapes using automatic cutting machines. The cut pieces of glass are then matched with one piece slightly smaller than the other to compensate for the final bent shape. After cutting, the matched pairs are washed and sprayed with a parting material to prevent fusing during the bending operation. The matched pair is then placed on special bending molds and passed through a bending furnace under controlled heating conditions. After the glass has softened and conformed to the bending mold, the glass is then subjected to a controlled cooling process in the same continuous furnace to insure proper annealing of the glass.

The bent and annealed pairs are then separated, washed, inspected and conveyed into a controlled lay-up room where the plastic sheet is inserted. This glass-

plastic sandwich is subjected to a de-airing process by passing through specially designed rolls and then subjected to high heat and pressure to obtain the final bonding of the glass and plastic. The finished product is then washed and inspected before packing.

Patent 3,103,430 relates to a hinged bending mold operated by forces of gravity which act as the glass is softened in the bending furnace. This mold is especially adapted to the production of windshields with extreme curves which are known in the trade as panoramic or wrap-around windshields.

Plaintiffs prima facie case will be directed to two ultimate issues:

(a) Infringement by Defendant of Claims 1, 3, and 7 of Plaintiff's U. S. Patent No. 3,103,430 issued September 10, 1963 to Joseph E. Jendrisak on an invention entitled "Glass Bending Apparatus." In particular, Plaintiff claims that the Guardian mold for the production of NAG 518 or 525 windshields and the hold downs of Gaydos deposition exhibit 5 and Steggles deposition exhibit 14B are representative infringing structures. In the event that Defendant cannot locate one of the above identified molds, then Plaintiff will select another mold as the representative infringing structure. A copy of the patent-in-suit is attached.

(b) The unauthorized use and appropriation by Defendant of certain trade secrets of Plaintiff entitled respectively:

No. 1 Trade Secret — MOLD
No. 2 Trade Secret — HOLD DOWN
No. 3 Trade Secret — PLASTIC CUTTING RING
No. 4 Trade Secret — SCHEDULING

A copy of a description of the listed trade secrets in suit is attached.

In essence, Plaintiff claims that two former employees, namely, Harvey Little and Walter Kapron, left Plaintiff's employ and entered into Defendant's employ where they disclosed and utilized trade secrets of Plaintiff for the benefit of Defendant in breach of their obligations to Plaintiff. Plaintiff claims that when Defendant received and used these trade secrets, it knew or should have known of such breach. Plaintiff asks for a permanent injunction and an accounting for damages.

4. DEFENDANT'S DEFENSES:

(a) *Laches and Statute of Limitations*: Defendant contends that the complaint as to the trade secret infringement, as well as patent infringement is barred by laches and/or the Michigan Statute of Limitations on the ground that suit was filed approximately nine (9) years after Defendant allegedly caused the breach of confidential relationship and improperly received and adopted the claimed trade secrets and patented glass bending fixture information and Plaintiff had knowledge of same, and during such nine years Defendant materially changed its position (e.g., opened a new manufacturing plant, invested large sums of money in manufacturing equipment, built large numbers of the accused fixtures, each of such years at substantial expenses, etc.)

The burden of proof is upon Defendant.

(b) *Patent Invalidity*: Defendant contends that the patent-in-suit is invalid for lack of novelty (35 USC 102) and obviousness (35 USC 103). The patent is presumed to be valid (35 USC 281) and the burden of proof is upon Defendant. The references being relied upon are

listed in the Notice of Prior Art filed on or about April 23, 1968 and in Defendant's Supplemental Notice of Prior Art filed October 31, 1968. Defendant may also rely upon the items listed in the letter of August 7, 1969 from its counsel to Plaintiff's counsel.

(c) *Patent Non-Infringement*: Defendant contends that its glass bending fixtures do not infringe the asserted claims in suit for the reasons given in the letter from Defendant's counsel to Plaintiff's counsel of April 24, 1968 and moreover, there is no infringement because Defendant uses the prior art. The burden of proving infringement is upon Plaintiff; the burden of proving justification or use of the prior art is upon Defendant.

(d) *Trade Secret Invalidity*: Defendant contends that none of the listed items are protectible, bona fide trade secrets belonging to Plaintiff. The burden of proving such items to be protectible trade secrets owned by Plaintiff is upon Plaintiff.

(e) *Trade Secret Non-Infringement*: Defendant contends that there was no breach of confidential relationship by Defendant or anyone acting by or for Defendant or caused by Defendant, nor has Defendant used any trade secret items belonging to Plaintiff if there are any. The burden of proof is upon the Plaintiff.

5. TITLE TO PATENT:

Defendant does not contest title to the patent-in-suit being in Plaintiff.

6. NOTICE OF INFRINGEMENT:

First notice of claim of patent infringement was by letter from Plaintiff dated January 25, 1965. The patent was called to the attention of Defendant in a letter dated September 24, 1963.

7. STIPULATED FACTS:

1. Plaintiff's records indicate that Harvey Little left Plaintiff's employment in February of 1956. The records of Defendant, Guardian Glass Company, indicate that Harvey Little was hired on February 20, 1956 and that he left Defendant's employment on April 25, 1959.

2. Plaintiff's records indicate the [sic] Walter Kapron left Plaintiff's employment in February of 1956. The records of Defendant, Guardian Glass Company, indicate that Walter Kapron was hired on February 20, 1956 and that he left Defendant's employment on October 2, 1959.

8. ISSUES OF FACT AND LAW TO BE LITIGATED:

1. The validity or invalidity of claims 1, 3, and 7 of Patent 3,103,430.

2. The scope and content of the prior art; the differences, if any, between the subject matter of the claims in suit and the prior art; and the level of skill of the art.

3. Whether or not the prior art discloses the subject matter of the claims in suit.

4. Whether or not the differences, if any, between the subject matter of the claims in suit and the prior art would have been obvious to those skilled in the art at the time the invention was made.

5. Whether or not Defendant's bending fixtures infringe the claims in suit.

6. Whether the bending fixtures of Defendant Guardian Glass Company, Inc. were based upon designs of the Ford Motor Company or upon the designs of Plaintiff.

7. Whether or not Defendant Guardian Glass Company, Inc. improperly acquired, through a breach of con-

fidential relationship, any bona fide, protectible trade secrets of Plaintiff, and if so, does Defendant Guardian Industries, Inc. use same.

8. Whether or not the trade secret complaint is barred by laches and/or statute of limitations.

9. Whether or not Defendant has used protectible, bona fide trade secrets belonging to Plaintiff and improperly obtained from Plaintiff by breach of confidential relationship for which Defendant is responsible.

9. WITNESSES:

In support of its prima facie case, Plaintiff intends to call the following named witnesses:

Joseph E. Jendrisak
Walter Kapron
Robert Baker
William M. Davidson
Harvey Little
Joseph Gaydos
Barney H. Hertzberg

For this rebuttal, Plaintiff may recall any of the above but also reserves the right to call other witnesses not named.

In support of its case, Defendant intends to call the following named witnesses:

Barney H. Hertzberg
Joseph E. Jendrisak
Cliff Mauser
Thomas C. Laginess
Harold E. McKelvey
Alton Brown

Plaintiff agrees to produce Jendrisak and McKelvey and Defendant agrees to produce Gaydos, Baker, Hertzberg and Davidson.

10. ESTIMATED LENGTH OF TRIAL:

Ten (10) days.

So Ordered:

TALBOT SMITH,

United States District Judge.

OPINION OF DISTRICT COURT

(Filed December 7, 1970)

Civil Action No. 26,544

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

SHATTERPROOF GLASS CORPORATION,
Plaintiff,

vs.

GUARDIAN GLASS COMPANY, INC., *et al.*,
Defendants.

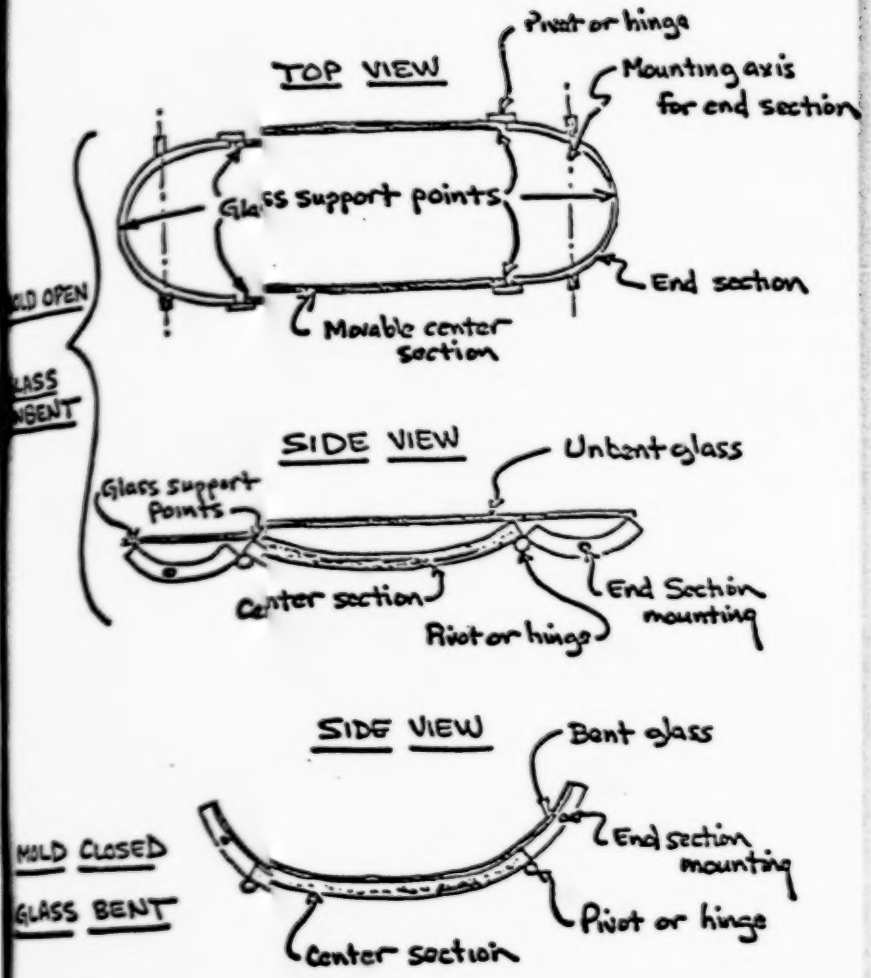
This case concerns the bending of glass for, principally, automobile windshields. The litigants are suppliers of replacement windshields, not original equipment suppliers. For a while, years ago, all that was needed for a windshield was a pair of flat pieces of glass. One piece comprised the left side of the windshield, the other the right. In the middle was a divider strip of some kind. Then in the early 1950's all of this changed. We began to get "panoramic" windshields, "wrap-around" windshields, which were bent pieces of glass, now common on cars. They are laminated, there being a sheet of plastic sandwiched between two pieces of glass.

The bending is simplicity itself in theory, though in practice difficulties arising from the process operations are experienced. The general idea is that the two pieces of flat glass, one slightly larger than the other, are put on a frame, or mold. As seen by the simplified sketch (page

1A hereof) this frame is made up of three sections, a center section, and two symmetrical end sections, one left, the other right. These sections are hinged so they can bend, either upwards to support the flat pieces of glass (their position at the outset) or downwards, to support the bent pieces of glass at the finish of the operation. At the start of the operation these sections are so disposed that six parts thereof support the flat glass. The frame, with its glass load is started through a furnace. As the glass heats up and softens it sags and sinks into the mold which, by means of its hinges, bends and receives it. We thus end up with bent pieces of glass. If, as we noted, we take two of these pieces of bent glass and make up a sandwich, with a piece of plastic in between, we have today's laminated wrap-around windshields. Our problems in this action relate to the molds on which the bending takes place, and more particularly to such things as hinges, pivots, and points of support. In addition, the plaintiff claims that the defendant misappropriated 43 of its trade secrets.

The Jendrisak patent-in-suit, 3,103,430, issued on September 10, 1963, relates to a hinged bending mold. The application had been filed on August 6, 1958 as a continuation in part of a patent application filed March 1, 1956. In controversy here are Claims 1, 3 and 7. Claims 1 and 3 cover the construction of a specific type of a glass bending mold, or fixture, utilizing a six-point support, two points at the end and four points intermediate the ends, at the hinges. Claim 3 is dependent upon Claim 1 and describes a species of the invention wherein the four support points are at the end of the center section rails rather than being at the ends of the end section rails. (The two ends of the two center section rails rise up above the ends of the end section rails and provide four points of

COPY BO


TOP VIEW
Pivot or hinge
Mounting axis for end section
Glass support points
End section
Movable center section
LD OPEN
LASS
NBENT
SIDE VIEW
Unbent glass
Glass support points
Center section
End Section mounting
Pivot or hinge
SIDE VIEW
Bent glass
End section mounting
Pivot or hinge
Center section
MOLD CLOSED
GLASS BENT

support.) It is clear that if Claim 1 is infringed, then Claim 3 is also infringed. There are no arguments directed towards non-infringement of Claim 3 per se.

We turn first to the validity of Claims 1 and 3 of the Jendrisak patent, bearing in mind that under the teachings of *Graham v. John Deere*, 383 U.S. 1 (1966), we are to look not only to the scope and content of the prior art, but at the differences between the prior art and the claims here at issue. We will look, as well, at the level of ordinary skill in the pertinent art and, as *Graham* puts it, "against this background" determine the obviousness, if such there be, of the subject matter.

The precise terms employed in Claims 1 and 3 are set forth in the patent, but we are aided in our interpretation by the testimony of the patentee Jendrisak as to just what he thought he had invented and accomplished. As to Claim 1, when asked what he believed he had invented he replied that it was "the 6-point support." (These are the support points for the panes of glass as they lie on the mold.) With respect to Claim 3 he testified that it was the "hinging in Claim 3 that the center section points when opened become higher than the end sections of the mold to receive the glass." In summary then, Jendrisak conceded that both Claim 1 and Claim 3 relate to a mold having hinged end sections and having a 6-point support. These references to a 6-point support were used constantly throughout the trial. Plaintiff itself states that this is a "shorthand term for the invention of the patent in suit" but points out as well that it is not a comprehensive definition thereof. For our purposes also it will serve as a convenient designation. Actually, we think it fair to say that the six point designation of the invention is perfectly consistent with Jendrisak's earlier Libbey-Owens-Ford

owned patents 2,774,189, and 3,094,403, which we are satisfied from the record, disclose everything called for by the claims in controversy, numbers one and three, with the sole exception of the 6-point support.

The hurdle that plaintiff must surmount as respects the patent is a mold used at the Ford Motor Company for many years. We have placed considerable reliance upon the testimony of the Ford engineers because the intense self-interest of the litigants in this matter has led us into a profusion of minor issues, sub-issues, and collateral issues, which have prolonged both the trial and the briefing of the case.

Mr. Laginess is at this time Ford's manager in charge of design and construction of tools for producing windshields. He testified that he has designed all of the fixtures used by Ford for bending windshields (with one exception) since 1950. It was his testimony that he, himself, had designed the mold for the first windshield used by the Ford Motor Company involving a bent piece of glass as well as the later molds for what we now call "wrap around" or "panoramic" windshields used on the 1955-1956 Ford and Mercury cars.

In the month of July, 1954 (which is about 20 months prior to the filing of the patent-in-suit) the Ford mold was put into commercial operation. Mr. Laginess testified that he began the design of the fixture in late 1953 and completed it in April of 1954, that he saw such molds being constructed, checked out their operation, and saw them in actual production use for bending windshields in July, 1954 at Ford's Dearborn Glass Plant.[1]

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[1] Defendants' Exhibits S-4 and S-5 are dated drawings of the mold in question.

Mr. Oscar Neff who was Supervisor of the Production Programs and Scheduling for the Ford Glass Division during the period in question furnished additional corroboration of the use of these molds. Mr. Neff was responsible for the maintenance of records of windshield shipments from the Dearborn Glass Plant and he testified from records showing shipments of several thousand of the windshields so constructed. Thus, some 80,000 were shipped in January, 1955, more than a year prior to the filing of the patent-in-suit. It is our finding in this respect that the record established beyond any question the commercial use of the Ford mold for making 1955 Ford and Mercury windshields commencing in approximately July of 1954.

We were given a detailed explanation by Mr. Laginess of the construction and operation of the Ford mold and there is no doubt in the Court's judgment that the 6-point concept is present in the Ford mold.[2] Mr. Jendrisak, in fact, so conceded upon cross-examination.

Q. Does the Ford mold have six-point support?

A. Yes.

Q. And where are those six points?

A. Obviously at the ends of the center section.

Q. Do you admit that the Ford mold shows the invention that you describe before, namely, a mold with six-point support?

[Objection omitted]

A. Yes.

* * * * *

[2] This mold was not among the prior art considered by the Patent Office examiner.

Q. Do you agree with me now that that idea of a six-point support on a bending mold was already old, by the time you made what you thought was your invention?

A. It appears that, yes.

Present, also, in the same Ford mold are the other essential structural features called for by Claims 1 and 3 of the patent-in-suit and in the very combination that the plaintiff asserts, for his patent, is novel, is "put together in a new way."

Notwithstanding, however, the above admissions on the part of patentee Jendrisak, he nevertheless vigorously contends that the Ford Motor Company "does not anticipate Claims 1 and 3 of the patent-in-suit." We will examine plaintiff's arguments in some detail, against the background of the well established principle that it is the claims rather than the specifications that are the measure of the invention in issue. *Kaiser Industries v. McLouth Steel,* 400 F.2d 36, 49 (CA 6, 1968).

Plaintiff emphasizes that one of the end sections on the Ford mold rotates about a fixed pivot rather than on a swinging-link pivot. (This latter type is used at the other end of the Ford mold and on both ends of the patent-in-suit.) Plaintiff then goes on to contend that such end-section is not mounted "to swing vertically" as is plaintiff's in Claim 1. This distinction is utterly without merit. An end section may have a vertical swing whether it employs a fixed or a link pivot, as the exhibits and models before us clearly demonstrate. There is clearly nothing in Claim 1 either precluding a fixed pivot or requiring a swinging pivot. To argue, as plaintiff does, that the Ford end section does not swing vertically is directly contrary, also, to the testimony of Mr. McKelvey, plaintiff's Manager of Re-

search and Development, who testified that the end sections of the Ford mold are "pivotally movable for movement up and down." It is our finding that both end sections of the Ford mold do, in fact "swing vertically" as required by Claim 1.

While on the subject of movement, we will consider another of plaintiff's attempted differentiations with the Ford mold, namely, that the center section of the Ford mold has "a significant lateral movement" and does not move vertically as is required by Claim 1. The vertical movement of the center section of the Ford mold is clear not only from our study of the construction of the mold itself but from the testimony of Mr. Laginess of Ford who, when asked whether or not the center section moved up and down during the operation of the mold replied "Yes, sir, it's carried up and down by the movement of the wing sections." This was also substantially Mr. Jendrisak's admission when asked if the Ford center section did not "connect with the end sections 'for vertical movement therewith'." His reply was that it did. As to plaintiff's claim of "significant lateral movement" in the center section, we find nothing significant about this movement. It is composed of "component forces and vector forces that go off to the side somewhere. I [Jendrisak] can't tell you where exactly, but they're not vertical * * *".

The contentions that the Ford mold center section has a significant lateral movement and does not move vertically is not supported in the record.

Plaintiff next urges that the axes about which the Ford end sections swing are not parallel, as required by Claim 1. There was a slight convergence of axes in the Ford mold. The significance, or lack thereof, of parallelism

was described by Mr. Laginess, the designer of the Ford mold, as follows:

> "Q. What determines, in the design of a fixture, whether the hinge axes are designed parallel to each other?
>
> "A. It's a geometrical problem of the shape of the windshields, along with the choice of where you are going to put the hinge points." (Tr. 325)

Whether these axes are parallel or non-parallel, the witness further testified, had "no effect at all on the mechanical operation of the fixture." Actually, as Mr. Jendrisak himself made clear in his own prior patent, the axis arrangement is dictated by the bend desired in the shape of the windshield.[3] "If such shape is substantially cylindrical, the axes of the hinges and supporting rods are parallel. If the glass has curved sections that tend toward a modified conical form, the hinge lines and supporting rods 24 must be reoriented to remain generally parallel to elements of the desired conical surface."[4] Finally, Mr. Jendrisak admitted on cross-examination that the arrangement of the axes was not inventive.

> "Q. Are you trying to say that the arrangement of the axes in a parallel form is an inventive addition to claim 1?"

The witness replied, "No, I am not trying to say that",[5] nor can the court. The defendants urge that there is thus no basis for patentability predicated upon the parallelism of these axes, with which we are in agreement and so find.

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[3] Patent No. 2,551,607 of 1951.

[4] Tr. 1504-5.

[5] Tr. 1505.

Plaintiff asserts, also, that the Ford mold differs from its mold because the Ford mold has a slight tilt, possibly 3/8th of an inch in a two-foot span, whereas the patent claim requires horizontal support. The question here is the meaning to be attached to the word "horizontal". Does it mean horizontal to a physicist, or to a mold builder? Horizontal in the laboratory or in the shop? The question was answered by Mr. Jendrisak himself. He was asked, "Now, if you saw a Guardian mold such as, for example, Exhibits 54 or 47, which your company has contended infringed Claim 1, and upon careful examination of that mold you discovered that there was a three-eighths inch slope of the glass on that mold, would you then believe that the mold is within the embrace of the description of the mold of horizontal?" His answer was "Let me think—if it were three-eighths, well, it would be within the embrace, but it would not be exactly horizontal". It seems clear that both Mr. Jendrisak and his counsel admitted that a mold with such a slight tilt would infringe Claim 1, that it would still be "horizontal", which we think is the practical and intended meaning of the word. Obviously, then, the Ford mold cannot be differentiated on this ground. There are occasions when because of the size or shape of the glass there has to be some tipping of the mold but it is more desirable to maintain the glass in a horizontal plane to help keep it from slipping off the mold. There is no patentable significance to presence or absence of a slight tilt in the molds before us, particularly in the claimed invention, and we conclude that the Ford mold supported the glass in a "horizontal" plane within the meaning of Claim 1.

We next consider plaintiff's final attempted differentiation of the Ford mold from the Jendrisak invention, namely, that the Ford mold was a "thrust" mold, and not

a "gravity bending" mold. The difference between these two molds is, in general terms, this: The thrust mold utilizes a thrust, or push, at each end of the mold to help along the sagging glass. It really creates a buckling effect. The gravity mold does nothing to push the ends, or buckle. The glass sags with the heat due to the force of gravity and the mold really goes "along for the ride."

Defendant argues with some justification that even in the thrust mold the force of gravity is really the predominating factor, since in the thrust mold the thrust itself is applied by a gravity operated linkage. Thus both are, it is argued, gravity (operated) molds.

But the claims in suit do not mention the matter of thrust. In the preamble to Claim 1 we find only "A collapsible mold for forming curved glass panels by *gravity* bending thereof while heated • • •". [Emphasis supplied.] There is no reference here to thrust or its use or application. Moreover, Mr. Laginess testified that in the Ford mold movement from the open to the closed position was caused by "gravity, along with the preset operation or weight of the fixture, the direction you want it moving, along with heat." It is significant on the matter of thrust that the stop at the end of the molds merely contacted the top of the glass ("when you loaded the glass, the top was in contact, when you loaded", testified Mr. Laginess) rather than exerting pressure on the edges of the glass for a buckling effect. The Ford mold cannot fairly be called a "thrust" mold. Actually, there are no significant differences in the functioning of the Ford and Jendrisak molds. In both the basic theory is that the glass, rather than the mold, is the controlling factor in the bending operation. Mr. Jendrisak stated that "• • • actually the glass is the controlling factor. It is the part that dictates

what the mold should do at its response," whereas, speaking of the Ford mold, Mr. Laginess said in part "Our objective would be to bend the glass with heat and simply let the fixture go along for the ride". It is our conclusion that the inventions of Claims 1 and 3 demonstrate no patentable departure from the Ford molds.

At this point, in our consideration of the Ford mold, we should advert to Mr. Jendrisak's own description of his concept of the invention, in somewhat more detail, as was illustrated by certain of his testimony.

> "Q. Mr. Jendrisak, with respect to Claim 1 of the patent-in-suit, what did you believe you had invented? [Objection made and overruled]
>
> "A. The six-point support.
>
> "Q. A six-point support mold?
>
> "A. Right.
>
> "Q. That is what you believed you invented?
>
> "A. Yes.
>
> "Q. Is that also true with respect to Claim 3 of the patent-in-suit? [Colloquy omitted].
>
> "A. Again, the offset or the—in other words, hinging in Claim 3, so that the center section points, which opened, become higher than the end sections of the mold to receive the glass.
>
> "Q. All right. Then it is fair to say that both Claim 1 and Claim 3 relate to what you believe to be your invention, namely, a mold having hinged end sections and having a six-point support?
>
> "A. That's right." (Tr. 486-87)

In order to appreciate the significance of the above admissions, their background must be reviewed. Mr. Jendrisak had earlier obtained Libby-Owens-Ford patents

2,774,189[6] and 3,094,403.[7] These patents showed all the significant features disclosed in the patent-in-suit with the exception of the six-point support feature. The plaintiff protests in its briefs that "Jendrisak's own copending patents cannot be used as references against him", that they are clearly not "prior publications". Whether they are or not (Cf. *Hazeltine Research v. Brenner,* 382 U.S. 252 (1965)) is not the issue at this point. Here we are looking at the scope of the invention, at just what is claimed to be the invention of Claims 1 and 3, a matter of delineation of boundaries. On this question the earlier patents of Mr. Jendrisak are illuminating. They reveal, as we noted, everything of significance in the later patent save and except the six-point support. Claims 1 and 3 claim the invention to be that of the addition of six-point support to the earlier Libby-Owens-Ford molds. This was also Mr. Jendrisak's trial testimony, quoted above.

But the six-point support concept is not limited to this earlier Ford mold. As the windshields got heavier and larger in the early 1950's other mold designers had employed six-points of support to prevent premature sagging. The patents of Golightly (2,876,595), Black (3,248,201) and Carson (3,089,319, using separate arms) all illustrate and employ this feature. These patents must be considered along with the previously described Ford mold. Golightly is particularly in point, the 6-points of support being precisely those of Claims 1 and 3. Plaintiff argues the inapplicability of these patents upon grounds that do not, in our judgment, impeach their significance for our purposes. Thus it is pointed out that Golightly has a fixed center section and counterweights. But it also has Jendri-

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[6] Def. Ex. A, Tab 24.

[7] See, Def. Ex. A, Tab 37.

sak's crucial six-point support. It is argued, as well, that the Ford use was not a prior public use because, in substance, it was not accessible to the public. "No effort," argues the plaintiff in its Reply Brief, "was made to show that anyone other than Hertzberg ever saw its bending molds or that the general public could wander in and out of the Ford plant at will, an amazing concept to a Detroiter."

Plaintiff misconceives the law on this point. The Supreme Court did no more than enunciate the common sense of the industrial age when it held in *Electric Storage Battery v. Shimadzu*, 307 U.S. 5, 20 (1939) that

> "The ordinary use of a machine or the practice of a process in a factory in the usual course of producing articles for commercial use is a public use."

The Ford Motor Company commended the use of its mold in July of 1954 (Jendrisak's filing date was approximately a year and a half later, on March 1, 1956) and shipped out over a million of them. This is beyond question a prior public use under the law. And it is clear, as well, that a prior public use invalidates a later filed patent, whether the use is identical (or substantially identical) to, or an obvious variation of the patent claim. *Tool Research v. Honcar*, 267 F.2d 449, 453-54 (CA 9, 1966), citing *International Tooth v. Gaylord*, 140 U.S. 55 (1891) and *Smith & Griggs v. Sprague*, 123 U.S. 249, 265 (1887). The case of *FMC Corporation v. F. E. Myers & Bros. Co.*, 384 F.2d 4 (CA 6, 1967) cited by plaintiff relates to a totally different issue, an inventor's secret and private use rather than a commercial public use.

Plaintiff urges that it has combined various elements in a novel way (and that all defendants have done is to pick them apart) but this is not the situation. What Jen-

drisak claims to have invented, the "six-point support", was in previous use by mold designers and there was no novel coaction, nor was there any unexpected result created, through or by the addition of a six-point support as the glass got heavier and larger. It was an obvious, inevitable step. Even without consideration of the Ford mold, Claims 1 and 3 are invalid as obvious. *Anderson's Black Rock v. Pavement Salvage*, 396 U.S. 57. The other claimed new mold features are not new in the glass bending art. They concern, in addition to the six-point support feature, an assertion as new of two identical end sections mounted on "suspended" pivoted links (not so claimed), a center section moving only vertically, no counterweights (not claimed), no massive sections (not claimed), a mold for bending two panes rather than only one for the back window (the claims make no such distinction), an annealing rather than a tempering mold (again the claims set up no such distinction), parallel axes, horizontal flat glass, and "gravity" versus "thrust" molds. Where the testimony warrants or forms any foundation for discussion we have considered each feature in detail herein. Those not analyzed in detail are either old, absent from the claims-in-suit, or both. We find that the bending mold of Claims 1 and 3 was obvious in view of the prior art.

As to infringement of Claims 1 and 3 by defendants, we heard much testimony relating to that portion of Claim 1 stating in part "said glass engaging members having end faces that abut at the ends of the center section". The word "abut" is ambiguous. It may mean either "to touch" or to "border on".[8] The patent, however, describes (Col. 5, lines 41-45) an end face (23) which "engages" another, thus clarifying the meaning for this purpose. The Guard-

[8] Webster's Third New International Dictionary (1968).

ian mold and faces do not touch or engage one another. In fact, a paper match-cover in its closed position can be inserted between them, as was demonstrated at trial. Although Guardian thus does not literally infringe, nevertheless, where equivalent means function in an equivalent manner to produce the same result there is infringement. The purpose of the abutment of the rails is to prevent overbending. A positive stop is employed by the above-described engagement. Defendant employs for this purpose not a rail stop, or a hinge stop, but an arm which strikes a bolt, thus preventing further movement. We find that this is merely an equivalent. It is, we note also, substantially equivalent to the Ford mold, which employed a stop screw threaded into the base of the fixture for this purpose, Ford also having a gap between the rails. Under the doctrine of equivalents there is thus infringement here. But there is no validity as to these claims, not only in view of the prior art Ford mold but also, both as to hinge-type and abutting end-rail stops, in Jendrisak's prior art patents 2,737,758; 3,094,403 and 2,551,607.

Claim 7 involves what is called a "hold down clamp." We have seen that the glass sinks into the mold during its passage through the furnace and conforms to the shape of the mold. But there is, under some circumstances, a too-great curling ("overbending") of the tip ends of the glass in the final stages of the operation. Whether a hold-down was necessary or not depended in part upon the furnace design. "For example," it was asked, "at Pittsburgh Plate Glass you were able to bend certain members without hold-downs, whereas at Shatterproof the same member has to be bent with a hold-down?" To which the answer was in the affirmative. At Shatterproof, it was testified, "they used gas pots to heat the glass at that particular point to make it more pliable and hold-ons to keep it down."

The inventive concept of the Jendrisak hold-down was its reversing feature. "Is it a fair summary, then, to say that your [Jendrisak's] invention was a hold-down which had a means to move the clamp partway from the glass when the mold was open and to reverse and move the clamp into contact with the glass when the mold was closed?" To which Mr. Jendrisak replied, "That is correct." This testimony is consistent with Mr. Jendrisak's representation to the Patent Office at the time of interference proceeding, in the filewrapper of the patent-in-suit, and in the specifications thereof.[9] It is clear, however, from the testimony and the exhibits that the defendant's mold, on the contrary, has no hold-down employing the reversing feature. The defendants' furnace, a later model than plaintiff's, made a reversing type hold-down unnecessary. Guardian's hold-down is in contact with the glass at all times. It is our finding that Claim 7 was not infringed by the defendants. The reversing feature of Claim 7 was not shown to be used by the defendants.

We might add, to round out our examination of this hold-down operation, that we are now in what we would describe as the field of balance and counterbalance, in which various results (of balance, or lack thereof) may be attained by a shifting back and forth of weights, or of using different pivots for the same weights. This is all ancient learning. It was Archimedes who is reported to have said, "Give me a place to stand and I will move the earth." [10] An example in the exhibits before us is that

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[9] See Tr. 1348-61, 1448-55, and Plaintiff's Ex. 1, Col. 8, lines 36-54, respectively.

[10] The report goes on that when Hiero II demanded proof of this, Archimedes rigged up a mechanical device by which the king, himself, was able to move a large and fully laden ship. See, generally, the Britannica (1963) and references therein.

of the Nylander patent,[10a] No. 1,799,526, utilizing a movable counterweight for applying continuous clamping pressure to a vise. The whole glass bending art is replete with weighted and counterweighted hold-downs. It is not a precise art. Actually, we are in the area of "just old-fashioned blacksmiths." (Tr. 1205) It is a trial and error operation, substantially empirical. Such testimony as "We don't have any drawings" [of molds], that no computers are used, that "we don't pay any attention to the fact that it's got to be absolutely horizontal" and so forth, gives a picture of the art far removed from the laboratory of the scientist. In this area, a shifting of weights to affect counterbalance in a hold-down is within the province of any skilled mold designer. We therefore find that the hold-down on Claim 7 is an obvious device to effect an improvement over prior art weighted hold-downs, made necessary by Shatterproof's unique problem.

We will now consider the alleged theft of trade secrets. Basic, of course, to the whole concept of trade secrets is secrecy itself. At the very outset of our consideration of this problem, it is stressed to us, and properly so, that the plaintiff's business, concerning which it makes broad claims of secrecy, was not an original-equipment business but a replacement business. What it did was merely to duplicate (for, say, a motorist whose windshield had been broken) windshields for the replacement market. The windshields themselves (the broken ones, that is, that are to be replaced by replacement companies, such as Guardian and Shatterproof) had already been produced by the original equipment manufacturers, and had been supplied to the replacement companies with molds and specifications. In addition, it is clear that those skilled in the art are able to tell

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[10a] Defendants' Ex. A.

from an examination of a windshield a great deal about it, such as the hinge points, whether a hold-down was used, or whether it was "bent to size or whether it was bent block size and cut after."

Thus, secrecy in this context of mere replacement is a concept of dubious application and the plaintiff's efforts to bolster it were singularly unpersuasive to the court. So far as secrecy at Shatterproof is concerned, there is a mass of testimony as to who was shown what, and when, of movies made and distributed, of visitors tours, of the routes they took, and what they could see and could not. Mr. Chase testified that starting prior to the early 1950's, various customers, i.e., dealers and distributors and others, undefined, were shown through the plant and through the bending operations. He also testified that there were two routes, a security route and a non-security route, but the course of each was never defined to us, although it was admitted that the so-called "security route" included the bending furnace, with molds going in and out. So far as the molds (testimony as to which comprise a substantial part of this case) are concerned, plant visitors, strangers to the moldmaker, Mr. Kapron, were allowed to watch him build molds in the shop. The most detailed explanation of the plant situation was provided by deposition witness Brown, who had been plaintiff's Assistant Sales Manager and who worked there from 1950 to January of 1958. He describes in detail plant tours encompassing raw glass storage, cutting, mold making, bending, washing, assembling, laminating, inspecting and packing operations, taking place during 1954 and 1955. The purpose of these tours, inaugurated to their fullest extent in 1954, was to demonstrate "what Shatterproof is doing, see the inspection stations, all the operations, it would be most helpful in handling quality complaints * * *." There was no

pledge of secrecy exacted and the only operation concealed was "the pre-press operation which was covered up because Shatterproof felt it was too crude." These tours were made with the knowledge of both Mr. Chase, President of Shatterproof, and Mr. Jendrisak.

Finally, the whole idea of secrecy is colored by nature of the business, which, as we have noted, is a replacement business, wherein original equipment (to be replaced, if broken) is supplied to the replacement companies, along with models and specifications, from which those skilled in the art are able to deduce much information about it. Although there is enormous disagreement in this area, we are satisfied, and find, that any formerly imposed restrictions on the viewing of its bending operations were abandoned by or at the time of the fall 1954 sales meeting at its plant, which was more than a year prior to the alleged theft of the secret information. Thereafter there was permitted viewing and observation utterly inconsistent with any preservation of secrecy.

Equally inimical to plaintiff's trade secrets theory, moreover, is the situation with respect to the two alleged thieves, Little and Kapron. It is plaintiff's theory that it was through these men that the defendant "misappropriated" the trade secrets of Shatterproof. These men, we note at the outset, were not supervisors or even foremen. They were hourly rated employees, Little's pay being $2.75 per hour. Both were mold makers. (There were about a dozen men at Shatterproof whose trade was mold making.) Neither man was told or warned that his work involved proprietary or confidential matter, nor did they so understand, save with respect to non-production, experimental items. The Jendrisak testimony is revealing on this point. He knew when both Little and Kapron left

that they were going to Guardian, to practice their trade in Guardian's bending operation, just as, Mr. Jendrisak admitted, he had some time back left Libby-Owens-Ford to go to Shatterproof to practice his profession or trade. At no time did he warn them that so-and-so were trade secrets, or ask them not to use them. "Did you feel," he was asked, "that either one of them were betraying you in some way?" The answer was, "Well, I don't know how I felt at the time. I felt we were losing good men, particularly Harvey Little. I certainly felt that." (Mr. Jendrisak later re-hired Mr. Kapron.) At no time had he ever accused either man of stealing trade secrets from him, nor did he ever contact and warn Guardian of a trade secret situation. The plaintiff has failed to establish the existence of any confidential relationship between it and Little and Kapron.

Plaintiff urges to us that the law, in this situation, as to these hourly rated workers "infers a confidential relationship in the same way that a client coming to a lawyer infers that the lawyer will not abuse the confidence reposed with him." The analogy is not apt. Its application to this situation would seriously impinge upon the doctrine of freedom of choice as to work and trade, and its inevitable result would be deleterious in the extreme to industrial labor, binding workmen to the particular employer for whom he originally worked in a modest, hourly-rated capacity. We are constrained to reject the argument made.

Nor do the circumstances of their hiring suggest that the defendant knew of any such relationship or participated in the breach thereof. Defendant's Vice-President Hertzberg testified that Little called him on the telephone and asked for employment, bringing Kapron with him. They

were hired as fixture makers, mold makers, which Guardian required, as do all companies similarly situated. "Ford had fixture makers and mold makers. Libby-Owens had them, Pittsburgh had them. And it was a trade, as far as I was concerned. I would have advertised under ordinary circumstances had they not approached me."

From all of the testimony on this matter, *pro* and *con*, we find nothing sinister, nothing of misappropriation. This is merely life in today's industrial world, employees coming and going, bettering themselves where they can. Shatterproof itself had hired both engineering and management personnel from Libby-Owens-Ford and Pittsburgh, when it went into the glass bending business in 1952. We are not, of course, hinting at any impropriety, but speaking rather, of trade practices. It is our conclusion and our finding that there was no confidential relationship with Little and Kapron, no breach thereof, and neither irregularity nor impropriety in their hiring by Guardian.

Having concluded that there was no secrecy here, no confidential relationship, and no breach thereof, it is probably an exercise in redundance to proceed now to determine if each of the alleged trade secrets was in fact a trade secret susceptible of misappropriation. However, we heard the testimony at some length, it has been fully briefed by the parties, and in the interests of completeness of the opinion we will rule thereon, but we will burden this opinion only with analysis of what we regard as essential and illustrative items.

At the very outset a controversy exists over just how many trade secrets are involved. This controversy has been with the case since its inception, has been the subject of conferences, discovery, and trial argument, and remains with the case today. It arises over the enumera-

tion and description of those items that should properly be considered as comprehended within the expression "trade secret." This plaintiff asserts that it is claiming only four. The defendants assert that they really claim forty-three. The reasons for the discrepancy are readily apparent. Thus the plaintiff asserts that its first trade secret, is "No. 1 Trade Secret—Mold." There follow six typewritten pages (see Defs' Ex. B) starting with the words *"One trade secret relevant to the Jendrisak mold was where to cut and hinge the parts of the skeleton mold* and *how to hinge the parts together* so that the parts of the molding surface of the center section and parts of the molding surface of the end sections would be so coordinated • • • "as to effect certain result." [Emphasis the Court's]. The defendants, properly in our judgment, broke down the above-quoted allegation (merely the first paragraph describing the "mold" trade secrets) into its material components, the phrases emphasized above. The plaintiff's description of the "mold" trade secret continues in like manner, interspersed throughout with such expressions as "Another part of plaintiff's trade secret was • • •", "Another part of the trade secret relevant to the mold was • • •", "This also was a new and important part of plaintiff's trade secret", "It was a trade secret to so position shielding • • •", and "An additional trade secret relevant to the use of the mold was • • •". What the plaintiff has done here is to lump together a series of alleged trade secrets (pertaining to the mold) into one comprehensive overall trade secret, described as "mold". The plaintiff describes defendants' breakdown of the overall "trade secret—mold" into its component parts as multilation hereof, but the characterization is hardly apt when plaintiff itself has subdivided as described into "parts". Moreover, to add to the confusion about the identification

of the trade secrets, on the fifth day of trial plaintiff tendered a list of trade secrets with certain of them circled in green. "I went over the trade secret list," stated plaintiff's counsel, "and omitted certain items". It was his suggestion that the defense waive or forego any cross-examination on the omitted items but nevertheless such, he stated, were to be included in any injunction the court might later issue with respect to trade secrets. This, for obvious reasons, was unacceptable to defense counsel and the trial as to trade secrets continued without substantial omission. Broken down into their various parts the defendants "four" trade secrets are actually 43 in number.

The defendants have categorized for purposes of trial and proof these variously enumerated trade secrets, whether they have been denominated "additional", "another", or what not, and has answered each in detail. We accept and adopt such categorization as a reasonable solution to the problem presented by plaintiff's cast of a wide net. Such categories relate to molds, hinges, links, and other classifications that will be discussed in due course.

Defendants urge, at the outset, that most of the first 40 of plaintiff's claimed 43 trade secrets (these 40 relating to the mold) were published in Jendrisak's earlier patent 3,094,403 owned by Libby-Owens-Ford, that he testified he considered the entire mold as being Libby-Owens-Ford's trade secret, and, according to defendants, it is "manifestly absurd" for him to now claim that the same subject matter has become Shatterproof's trade secrets. In addition, that all forty of them were admitted by Jendrisak to have been shown in the patent-in-suit and also in each of his four foreign patents. Plaintiff's reply is that 3,094,403 did not issue until after Little and Kapron went to Guardian, and, moreover, that defendants are in error

as to the dates of publications of the foreign patents. Defendants respond that "the pattern of seeking patents negates any intention to preserve the patent disclosures as trade secrets." We are not going to be led into these collateral by-paths, remotely relevant, and interesting though they may be, but will turn at once to content of the particular trade secrets involved within the categories described.

We start with the hinges, which are essential to the functioning of the mold. Items 1-3 and 8-12 relate thereto. We eliminate items 1 and 7 at once, since Mr. Jendrisak admitted that these were never trade secrets of the plaintiff. Items 2, and 8 to 11 relate to the dimensions of the hinge and the materials thereof. We find no clear and unambiguous specifications of what portions of these items, if, indeed, any, are claimed to be trade secrets. Item 3 concerns the coordination of hinge axes. It was conceded by counsel (Tr. 535) that this was not a trade secret. Item 12 (involving a hinge positioning and design) was previously used in the prior art Ford mold.

As to the construction of the mold, items 4-6 and 13-16 on plaintiff's list (defendants' exhibit B), the first group involving the support of the glass on six points in a horizontal plane without the use of stops to contact the edge of the glass, employ concepts widely known in the glass industry (see, e.g. the prior art Ford mold) prior to 1956 and could not have been the trade secrets of the plaintiff. Items 13-16 concern the concept of counterbalancing the mold in order to minimize the pressures on the glass during the bending operation. Such devices were widely employed, the problem being merely one of varying pressures or weights to obtain minimum, or desirable, pressures. There is nothing of the legal (or

practical) trade secret herein. The three remaining items (17, 19-22) were admitted by plaintiff to be neither used by nor asserted against the defendants. Item 18 relates to the use of swinging links to carry the end sections of the mold. It is shown in Jendrisak's 1951 patent 2,551,607 and elsewhere. It thus could not have been plaintiff's trade secret.

We next get into the area of heat shielding and absorbers. It will be recalled that the glass-carrying molds travel through a furnace, wherein the glass softens, and bends. It is desirable to control the furnace heat, either by preventing its reaching certain portions of the glass, or assisting in its radiation. Contraptions to accomplish such purposes are practically as old as the industry itself, being shown in old patents as well as new. Mr. Jendrisak admitted that he knew prior to filing the suit that heat shielding was an old and well known technique in the industry. (Tr. 1558) Mr. McKelvey also testified that he knew of the use of heat shielding and heat absorbers at Pittsburgh Plate Glass prior to 1955. The items we have considered (23-25) we find were never plaintiff's trade secrets.

We come now to the matter of the materials out of which a mold is constructed. In common with the desire of all engineers to use materials that are as economic and efficient as possible for their desired purposes, mold designers have used a variety of materials and techniques. Items 26-31, and 40, all relate to the materials and methods of fabricating the mold elements. The industry employs, for example, welded metal strips rather than the heavier castings, perforated plain carbon steel elements welded together rather than larger entire stainless steel sections. These devices were all well known and widely

utilized design practices, and the record is completely lacking in any persuasive testimony that these were trade secrets of the plaintiff in 1956. Likewise the use of trusses to reinforce the mold (Items 32-35) was a widely known and used idea. We take judicial notice of the fact that they are widely used on bridges. Mold makers Kapron and Little both testified as to the common use of trusses in many designs requiring reinforcement, boxcars, and trucks, as well as bridges. The use of trusses is found also in prior patents, see Jendrisak's 2,551,607. It is our finding that reinforcement by the use of trusses was not a trade secret of plaintiff in 1956.

It is alleged also that the holddown described in the patent before us was a trade secret. We have held heretofore, however,[11] that plaintiff's holddown has not been used by the defendants and hence we need not pass upon its secrecy.

The plaintiff asserts also that its "cutting ring" template is a trade secret. The template is used for cutting the outline of the glass prior to its bending. There is nothing new in the use of a template as a cutting guide, and such a template can be made in many ways, such as machining the ring out of a metal plate. What plaintiff did was to cut a groove in a plastic sheet and pour into it a plastic (here a thermoplastic epoxy resin). The groove was a female replica of the ring to be formed. This is an old technique for casting parts (McKelvey), is used for many kinds of fixtures, and is simply one of the skills employed by any competent mold maker (Kapron). In addition, as to secrecy, patent was applied for in 1957, but the Patent Office Examiner considered "that the art of cast-

[11] See discussion of Claim 7.

ing something out of a resinous plastic was old and it didn't see 'any need of' (*sic*, 'anything new in') casting this particular part out of a plastic." (Tr. 808) Finally, it appears that it was not until the year 1956, which was after Little and Kapron had left, that Mr. Jendrisak had a "usable" cutting ring. We find lacking in all of this any enforceable trade secret.

"Scheduling" is the last of plaintiff's alleged trade secrets. What scheduling refers to is really the order in which the glass is sent through the furnace. It may be desirable to send it through on some kind of schedule, arranging the glass in ascending (or descending) order of curvature and adjusting the furnace characteristics and travel thereto. Or, the molds may simply be sent through the furnace with only a random, or hodge-podge placing thereof. Mr. Jendrisak admitted that he had no knowledge of any use by the defendants of this trade secret, if, indeed, it was a trade secret, and we find no such use.

Underlying all of this discussion of trade secrets is another critical factor, namely, the individual expertise and background of the alleged wrongdoer. Was he, in truth, some newcomer who saw a new (to him) and fertile field, and proceeded to plough it with technicians purloined from plaintiff? Or was he an old hand in the business, employing for expansion thereof whatever help was available on the open market?

Defendants' Vice-President was Mr. Hertzberg. He is a man of 72 years of age, 57 of it in the glass business, 31 with Guardian. His previous experience was with Triplex Safety Glass (of New Jersey) and the Ford Motor Company, where he had been shift superintendent of their glass operation. Guardian's business had been that of manufacturing flat laminated safety glass for the auto

industry before it had gotten into the bending which is involved in the present controversy. When Guardian decided to go into the manufacture of bent glass, Mr. Hertzberg "went out to Ford Motor, knowing the general manager of the glass division * * * and I advised him of our plans". He enjoyed a cooperative relationship with Ford, arising out of not only his prior employment there, but also because of the fact that Guardian was a good customer for Ford glass. During 1954-1955 many visits were made to the plant, with particular attention being paid to the bending operations, and the Ford bending mold heretofore discussed. Ford assisted Guardian in its planning, Mr. Hertzberg ordering the same kind of bending furnace as that used at Ford. He personally designed the layout of Guardian's bending operation. It was about this time that Harvey and Little were hired. There was considerable mobility among the workmen in the industry, in fact, Little and Kapron "and probably about five other people that were foremen or experienced—we'll call them mold makers—left our [Guardian's] employ to go over to Chrysler to start that up there" and we have noted Mr. Jendrisak's (and other's) departure from Libby-Owens-Ford and Pittsburgh Plate Glass, going to Shatterproof. We have concluded heretofore that there was nothing legally sinister in this hiring of Kapron and Little. After their hiring they, with Mr. Hertzberg, visited the Ford plant and observed the Ford molds in operation. In addition, Guardian purchased competitive windshields, for examination and study, from Libby-Owens-Ford and Pittsburg Plate Glass, determining therefrom the hinge points. Trial runs were had in due course, Ford furnishing reject glass for this purpose, and the technicians of the furnace manufacturer (Surface Combustion) re-

mained at the new operation for over a month to adjust the furnace.

From the extensive testimony taken, the essential parts of which are summarized above, we are persuaded (and we find) that Guardian acquired its industry expertise from legitimate sources and in no way exploited illegally the knowledge of Little and Kapron. There was here no appropriation of trade secrets through participation in the breach of alleged confidential relationships between plaintiff and these employees.

The defendants assert laches on the part of the plaintiff, and, as well, the running of the statute of limitations. The hiring of Little and Kapron took place in 1956, at which time, as we have described, Guardian was moving from flat lamination of glass into the bending business. Both Jendrisak and Chase knew of such hiring and knew that these employees were going to continue their trade with their new employer and that they would be taking their "trade secrets", if any, with them. There can be no question but that Mr. Jendrisak and Mr. Chase knew that Guardian's setting up of a bending operation would necessitate the expenditure of large sums of money. Mr. Jendrisak estimated as the cost of what was termed "the whole setup for bending glass" to be "I'd say roughly a million, a million two hundred thousand, a million three hundred, four hundred thousand, thereabouts". (Tr. 610) This does not include building or land. In addition, around a hundred thousand dollars a year would be required for molds alone. Never in the reported cases have we encountered a similar situation, where the success of a business venture involving the expenditure of over a million dollars for capital equipment alone is alleged to have rested upon the unlawfully used knowledge of two hourly-

paid laborers (not executives, nor supervisors, nor even foremen) from another plant, neither having the slightest inkling, or receiving the slightest warning, that they were carrying with them "trade secrets", the faithless disclosure of which would, principally, spell success for this huge investment. With Jendrisak's and Chase's knowledge of the magnitude of expenditure required, if, as they now assert, it was to be remunerative principally through the theft of Shatterproof's trade secrets, via Little and Kapron, it was their duty to warn in unequivocal and unmistakable terms of the dereliction and its consequences. Yet not one word was said on that specific subject and reliance is now placed upon certain letters concerning patents which we will analyze in due course.

Although Shatterproof had knowledge in 1956 of the alleged theft, and of the expenditures necessarily made, suit was not filed until 9 years later. Obviously, the misappropriation of trade secrets is not a continuing offense. The wrong occurs at the time of the improper acquisition. *Russell v. Wall Wire Products*, 346 Mich. 581, 111 PsQ 51 (1956). The same issue was discussed in the case of *Monolith Portland Midwest v. Kaiser Aluminum*, 407 F.2d 288 (CA 9, 1969) 160 USPQ 577. The first issue before that Court does not concern us here (involving knowledge of the use) since knowledge of the cause of action nine years prior to suit was clear and, we think it is fair to say, admitted on the record. The second point, however, whether each use of the alleged secret is a new wrong, and that a continuing use is a continuing wrong, is in point here, the Court holding with respect thereto, that

> "The protected relationship, contractual or confidential, is one to which, as Mr. Justice Holmes observed,

'some rudimentary requirements of good faith' are attached. 'Whether the Plaintiffs have any valuable secret or not the Defendant knows the facts, whatever they are, through a special confidence that he accepted. The property may be denied but the confidence cannot be. Therefore the starting point for the present matter is not property * * *, but that the Defendant stood in confidential relations with the Plaintiff * * *.' *E. I. DuPont de Nemour v. Masland* (1917) 244 U.S. 100, 102. The fabric of the relationship once rent is not torn anew with each added use of disclosure, although the damage suffered may thereby be aggravated, the cause of action arises but once . . . 407 F.2d at 493. 160 USPQ at 580." See, also, Restatement of Torts (1939) Section 757.

We have held heretofore that no confidential relationship existed. We will add that, the alleged wrong having occurred in 1956, the Complaint is clearly barred by the statute of limitations.

Moreover, the Complaint is barred by laches. The above-described findings of fact make this conclusion inevitable. Plaintiff seeks to avoid the result by pointing to four letters which it wrote to representatives of Guardian. These letters we have examined in detail and have construed them in the light of the testimony before us. The first, written by Shatterproof, some 2½ years after the hiring of Little and Kapron, advises that "we have allowed claims in pending U.S. patent applications which we have reason to believe cover glass bending molds used by Guardian Glass Company". The letter goes on to assert that Guardian "persuaded" Shatterproof's employees to leave it and work for Guardian, and continues that those employees were "instrumental" in installing Shatterproof

bending technology and processes at Guardian and that Guardian "now use[s] equipment identical or similar to the equipment used at Shatterproof". The letter warns that "When these applications issue as patents, Shatterproof has every intention of enforcing them against infringers". The patent spoken of issued some five years later.

Guardian's patent counsel replied to this letter in effect by asking for greater details as to the "persuaded" employees, as to the bending technology allegedly coming to Guardian through these employees, the basis for predicating conclusions of infringement, and requesting Shatterproof to assist it in tying down "these rather general assertions of violations of patents and confidences to more specific details". In reply Shatterproof's patent counsel stated in part that

> "Guardian Glass did not bend glass until after these men went to work for it. We can only assume that the Shatterproof bending techniques were used in whole or part by Guardian in order to achieve this result because none of these men had experience in bending glass prior to their employment with Shatterproof. In other words, the only bending techniques these men knew about were those used by Shatterproof."

It stated, as well, that "Shatterproof is not making a claim against Guardian now. It is simply advising the Trustee that it has very good reason to make a claim when and if its patents issue." This letter, in fact the entire correspondence, concerns patent claims. If trade secrets are to be read therein, it can only be by indirection, yet we are dealing with the letters of experienced

counsel who well know how to charge trade secret theft. The reasoning employed by Shatterproof in the correspondence is neither clear nor impressive. It seems to be that Guardian is infringing Shatterproof's patent claims because it did not bend glass before Little and Kapron went to work for it and all they knew they got at Shatterproof, whose techniques are covered by pending patent claims. But this whole structure collapses if Guardian were merely employing the customary crafts of the trade, using knowledge legitimately obtained at Ford and in the open market, which is our conclusion upon the record before us.

The reasons given for the delay in the assertion of notice of a trade secret claim are not impressive. First, that Guardian was in bankruptcy. Timely assertions of claims in bankruptcy are a commonplace. It is argued that the patent before us did not issue until 1963. The trade secret claim, however, which is distinct from the patent claim, fully matured in 1956. Finally, Shatterproof argues that it had no positive proof of trade secret violations until 1964, when it allegedly sent one of its employees into the Guardian plant on a "mission" to find out what they were doing. He is said to have submitted a written report to both Chase and Jendrisak, but Jendrisak's trial testimony makes no mention of it. He is said to have reported back "that they were using our methods," "our mold," "our hold-downs and our hinges". Even if made, the belated investigation could not reasonably be termed due diligence under these circumstances. We have found heretofore, however, that both Chase and Jendrisak knew in 1956 that Guardian was about to set up a glass bending operation and that both Little and Kapron were going to practice their trade at Guardian as they had at Shatterproof. Yet despite Jendrisak's admission that the

only basis he had (Tr. 1442) for these widespread charges of the theft of trade secrets was the bare fact of the hiring of Kapron and Little, he did not even speak to them (or Guardian) about or against the disclosure of trade secrets. The plaintiff's President, Mr. Chase, repeatedly pressed for reasons for the nine year delay in filing suit, repeatedly answered in substance "No reason in particular".

We find that plaintiff was inexcusably and substantially dilatory in prosecuting its claim. The Complaint is barred by laches in addition to the running of the statute of limitations.

We are asked by defendants for an award of reasonable attorney fees under 35 USC 285, "The Court in exceptional cases may award reasonable attorney fees to the prevailing party." The cases (e.g. *Plymouth Rubber Co. v. Minnesota Mining*, 203 F. Supp. 593, 601 (D. Mass. 1962)) illuminate the statute, it being their holdings that there must have been vexatious or harassing litigation, really smelling of bad faith. We cannot find that here. The plaintiff's patent claims are manifestly without merit but this is not the first case where that situation has obtained, and we are not persuaded of bad faith with respect thereto.

CONCLUSIONS OF LAW

1. The Court has jurisdiction of the parties and the subject matter of the action.

2. Claims 1, 3 and 7 in suit are all invalid as obvious under 35 USC 103.

3. Claims 1 and 3, if valid, are infringed by Defendant.

4. Claim 7, if valid, is not infringed by Defendant.

5. Plaintiff possessed no bona fide trade secrets as of the time of the alleged theft by its former employees Little and Kapron and Defendant in 1956.

6. Plaintiff has no confidential relationship with either of its former employees Little and Kapron or with Defendant.

7. Defendant acquired all of its glass bending expertise (referred to in the record as its "know-how") by legitimate means, and was not guilty of any impropriety in this regard.

8. The Complaint is barred by both laches and the statute of limitations.

IT IS ORDERED and Counsel for Defendants will submit appropriate judgment in accordance herewith.

TALBOT SMITH
United States District Judge.

Detroit, Michigan
December 7, 1970.